IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: ROBERT S. CRESWELL ET AL.

For: DIVERTER VALVE

Serial No.: 10/595,281 Examiner: John C. Fox

Filed: November 22, 2006 Group Art Unit: 3753

Atty. Docket: 70038-0068 Confirmation No.: 6682

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this correspondence is, on the date shown below, being:

deposited with the United States Postal Service
With sufficient postage as first class mail, in an envelope addressed to the Commissioner for Patents,

Alexandria, VA 22313-1450.

/Rebecca L Shilt/

Signature

Date: March 24, 2009 Rebecca L, Shilt

(type or print name of person certifying)

Commissioner for Patents Office of Patent Legal Administration P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

REQUEST FOR RECONSIDERATION OF PATENT TERM ADJUSTMENT UNDER 35 U.S.C. § 154 AND 37 C.F.R. § 1.705(b)

In accordance with 37 C.F.R. § 1.705(b), Applicants hereby request reconsideration of a determination of patent term adjustment under 35 U.S.C. § 154(b). This request for reconsideration is timely filed because it is filed after the date of mailing of the Notice of Allowance and before payment of the issue fee.

The Commissioner is authorized to charge deposit account 50-2003 the sum of \$200 for this request in accordance with 37 C.F.R. § 1.18(e). However, because Applicants believe that this request is necessitated because of an error on behalf of the U.S. Patent and Trademark Office

Serial No.

10/595,281

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Page 2 of 3

Filed:

Examiner: John Group Art Unit: 3753

John C. Fox

in making the adjustment to the patent term, Applicant should be refunded this fee if this request

is granted.

STATEMENT OF FACTS INVOLVED

The correct patent term adjustment for this patent should be 147 days. The Notice of

Allowance determined that the patent term adjustment is 0 days.

This application was filed on November 22, 2006, under the provisions of 35 U.S.C.

§371(c) based on PCT Patent No. PCT/US2004/033436 filed October 8, 2004, and claiming the

benefit of U.S. Serial No. 60/481,499, filed October 10, 2003. The U.S. Patent and Trademark

Office accepted November 22, 2006 as the §371(c) filing date. See Exhibit A attached hereto.

The due date for mailing the first office action under 37 CFR §703(a)(1) was 14 months

after the §371(c) filing date of November 22, 2006, which date was January 22, 2008.

The first Office Action in this application was mailed on July 17, 2008, 177 days after 14

month due date based on the §371(c) filing date of this application. A copy of the first Office

Action is attached hereto as Exhibit B.

Applicants filed a timely Response to this Office Action on August 18, 2008; a copy of

this Response is attached hereto as Exhibit C.

A second Office Action in this application was mailed September 10, 2008. A copy of

the second Office Action is attached hereto as Exhibit D, for which a timely response was due

December 10, 2008.

Applicants filed a Response to this Office Action on January 9, 2009, along with a one

month extension of time; a copy of this Response is attached hereto as Exhibit E.

On March 18, 2009, a Notice of Allowance, a Determination of Patent Term Adjustment,

and a Notice of Allowability were mailed to Applicants. A copy of these documents is attached

hereto as Exhibit F. In the Determination of Patent Term Adjustment, the Patent and Trademark

Office determined that the patent term adjustment was 0 days.

Serial No. Filed:

10/595,281

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Examiner:

John C. Fox

Group Art Unit: 3753

This Determination of Patent Term Adjustment is in error because any delay in issuance

of the first Office Action was not the fault of the Applicants and was the fault of the U.S. Patent

and Trademark Office. The total delay attributable to the U.S. Patent and Trademark Office is

177 days and the total delay attributable to Applicants is 30 days, a difference of 147 days

calculated under 37 CFR §1.704(a). The correct Patent Term Adjustment should be 147 days.

Upon review of the file in Private PAIR, Applicants' attorney found in the Patent Term

Adjustment History an entry dated July 18, 2007, with the notation "Dummy Standard Action –

DO Not DELETE." This faulty and unknown entry may have led to the improper computation

of the patent term adjustment of 0 days. A copy of this Patent Term Extension History, printed

from Private PAIR on March 19, 2009, is attached as exhibit G.

In view of the foregoing, Applicants believe that they are entitled to the full 147 days of

patent term adjustment and no deduction should be made because Applicants carried out their

obligation to prosecute the application diligently within the law.

Restoration of patent term adjustment of 147 days is respectfully requested.

Respectfully submitted,

ROBERT S. CRESWELL ET AL.

Dated: March 24, 2009

By: /Joel E Bair/

Joel E. Bair, Reg. No. 33,356

McGarry Bair PC

32 Market Ave. SW, Suite 500

Grand Rapids, Michigan 49503

616-742-3500

G0449262, DOC

EXHIBIT A



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandra, Virginia 22313-1450 www.uspto.gov

APPL-NO.	FILING OR 371(c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	TOT CLMS	IND CLMS
10/595,281	11/22/2006	3753	515	70038-0068	18	1

CONFIRMATION NO. 6682

20915 MCGARRY BAIR PC 32 Market Ave. SW SUITE 500 GRAND RAPIDS, MI 49503

FILING RECEIPT

OC000000024068273

Date Mailed: 05/29/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Robert S. Creswell, Grand Rapids, MI; Michael Zolnierek, Grandville, MI; Michael W. Regelbrugge, Rockford, MI; Jimmie D. Chrysler, Wyoming, MI;

Assignment For Published Patent Application

AMERIKAM, INC., Grand Rapids, MI

Power of Attorney: The patent practitioners associated with Customer Number 20915.

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/US04/33436 10/08/2004 which claims benefit of 60/481,499 10/10/2003 and claims benefit of 60/481,890 01/13/2004 * (*)Data provided by applicant is not consistent with PTO records.

Foreign Applications

If Required, Foreign Filing License Granted: 05/24/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is US10/595,281

Projected Publication Date: 08/30/2007

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

Title

DIVERTER VALVE

Preliminary Class

137

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING

LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address. COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

U.S. APPLICATION NUMBER NO.

FIRST NAMED APPLICANT

ATTY. DOCKET NO.

10/595,281

Robert S. Creswell

70038-0068

INTERNATIONAL APPLICATION NO.

PCT/US04/33436

I.A. FILING DATE

PRIORITY DATE

20915 MCGARRY BAIR PC 32 Market Ave. SW SUITE 500 GRAND RAPIDS, MI 49503

CONFIRMATION NO. 6682
371 ACCEPTANCE LETTER
OC000000024068274

Date Mailed: 05/29/2007

NOTICE OF ACCEPTANCE OF APPLICATION UNDER 35 U.S.C 371 AND 37 CFR 1.495

The applicant is hereby advised that the United States Patent and Trademark Office in its capacity as a Designated / Elected Office (37 CFR 1.495), has determined that the above identified international application has met the requirements of 35 U.S.C. 371, and is ACCEPTED for national patentability examination in the United States Patent and Trademark Office.

The United States Application Number assigned to the application is shown above and the relevant dates are:

11/22/2006

11/22/2006

DATE OF RECEIPT OF 35 U.S.C. 371(c)(1), (c)(2) and (c)(4) REQUIREMENTS

DATE OF COMPLETION OF ALL 35 U.S.C. 371 REQUIREMENTS

A Filing Receipt (PTO-103X) will be issued for the present application in due course. THE DATE APPEARING ON THE FILING RECEIPT AS THE "FILING DATE" IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. 371 (c)(1), (c)(2) and (c)(4) REQUIREMENTS HAS BEEN RECEIVED IN THE OFFICE. THIS DATE IS SHOWN ABOVE. The filing date of the above identified application is the international filing date of the international application (Article 11(3) and 35 U.S.C. 363). Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.

The following items have been received:

- Indication of Small Entity Status
- Copy of the International Application filed on 04/04/2006
- Copy of the International Search Report filed on 04/04/2006
- Preliminary Amendments filed on 04/04/2006
- Information Disclosure Statements filed on 04/04/2006
- Oath or Declaration filed on 11/22/2006
- U.S. Basic National Fees filed on 04/04/2006
- Assignee Statement for PGPUB filed on 04/04/2006
- Priority Documents filed on 04/04/2006

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

JUNE D GREEN

Telephone: (703) 308-9290 EXT 180

PART 1 - ATTORNEY/APPLICANT COPY

FORM PCT/DO/EO/903 (371 Acceptance Notice)





United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,281	11/22/2006	Robert S. Creswell	70038-0068	6682
20915 MCGARRY B.	7590 07/17/2008 AIR PC		EXAM	INER
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SUITE 500 GRAND RAPI	DS, MI 49503		ART UNIT	PAPER NUMBER
	· .		3753	
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		•	MAIL DATE	DELIVERY MODE
			07/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/595,281	CRESWELL ET AL.
Office Action Summary	Examiner	Art Unit
	John Fox	3753
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 66(a). In no event, however, may a reply be time ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	I. tely filed the mailing date of this communication. (35 U.S.C. § 133).
Status		
Responsive to communication(s) filed on <u>04 Ag</u> This action is FINAL . 2b)⊠ This Since this application is in condition for allowant closed in accordance with the practice under E	action is non-final. ace except for formal matters, pro	
Disposition of Claims		
4) ⊠ Claim(s) <u>1-18</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are rejected. 7) □ Claim(s) is/are objected to. 8) ⊠ Claim(s) <u>1-18</u> are subject to restriction and/or e Application Papers 9) ⊠ The specification is objected to by the Examiner	election requirement.	
10) ☐ The drawing(s) filed on <u>04 April 2006</u> is/are: a) [Applicant may not request that any objection to the o Replacement drawing sheet(s) including the correction 11) ☐ The oath or declaration is objected to by the Example 11.	frawing(s) be held in abeyance. See on is required if the drawing(s) is obj	37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) ☒ Acknowledgment is made of a claim for foreign a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents 2. ☐ Certified copies of the priority documents 3. ☒ Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list of	have been received. have been received in Application ty documents have been received (PCT Rule 17.2(a)).	on No d in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 4/4/06.	4) Interview Summary (Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:	te

Application/Control Number: 10/595,281

Art Unit: 3753

This action is responsive to the communication filed April 4, 2006.

The drawings and specification are objected to. On page 5, line 15, the inner end "70" is not shown in the drawings. On page 6, first full paragraph, both "an outlet face 102" and "the contact surface 102" are disclosed. Referring to disk 16, Figures 1, 5, and 6, page 6 recites "an elongated filter opening 110" but these drawings do not show such opening. Figures 5 and 6 show two elongated openings 108, 112, two through openings 104, 106, and the last through opening is unlabelled and undescribed. In Figure 13 "110" labels opening 108, in Figure 15 "108" labels 104, and in Figure 17 "104" labels 106 and "106" labels the undescribed opening. None of Figures 12, 14, and 16 label any of the relevant passages. It is virtually impossible to understand this part of the disclosure.

On page 6, line 28, it appears that it should read "mount 20 need not". On page 9, line 1 "an adapter 160" is mentioned but Figures 10,11, 18, 21 show an adapter 162. This adapter 162 also conflicts with seal 162 of Figure 19. On page 11, first full paragraph, both "sealing rings 162, 164, and 166" and "grooves 162, 164, and 166" are mentioned. Notch 174 is not labeled in Figure 19. In Figure 4, "86" labels both 86 and 84.

While there is no specific requirement as to how much of the drawings need be labeled, additional labeling would help to understand the invention. Figures 13, 14, 16 have been mentioned. "108" in Figure 5 and "112" in Figure 6 would be helpful. In Figure 11, elements 60, 88, 90, 92, 94, 104, 106, 116, 118, 120, 122, and 128, all of which are important to an understanding of the invention, are visible but unlabeled.

Art Unit: 3753

The drawings are objected to for the reasons above. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to for the reasons above. Correction is required.

This application contains claims directed to the following patentably distinct species

Figures 1-17

Figures 18-20

Figures 21-23.

Application/Control Number: 10/595,281

Art Unit: 3753

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, at least claims 1-3 appear to be generic.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at

the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912.

The examiner can normally be reached on Monday-Saturday from 10am-6pm (Hoteling Program).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/595,281 Page 6

Art Unit: 3753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Fox/ Primary Examiner Art Unit 3753 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	
	Filing Date	
	First Named Inventor Robert	S. Creswell
	Art Unit	
	Examiner Name	
	Attorney Docket Number	70038-0068

	U.S.PATENTS Remove									
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue [Date	of cited Document		Pages,Columns,Lines w Relevant Passages or R Figures Appear		
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	2	1293712	EP		А	2003-09-10	Barbara Soldi			

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⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

Electronic Acknowledgement Receipt					
EFS ID:	3797449				
Application Number:	10595281				
International Application Number:					
Confirmation Number:	6682				
Title of Invention:	EXHIBIT C DIVERTER VALVE				
First Named Inventor/Applicant Name:	Robert S. Creswell				
Customer Number:	20915				
Filer:	Joel Evan Bair				
Filer Authorized By:					
Attorney Docket Number:	70038-0068				
Receipt Date:	18-AUG-2008				
Filing Date:	22-NOV-2006				
Time Stamp:	16:12:20				
Application Type:	U.S. National Stage under 35 USC 371				

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		G0396089.PDF	137971	ves	6
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	Applicant Arguments/Remarks	6	6	5				
Warnings:								
Information	:							
2	Drawings-other than black and white	G0396068.PDF	276830	no	10			
_	line drawings		6aeea4cde12a54f10bacf1c9775b5ea7ed3b 2ae8					
Warnings:			,	'				
Information	:							
3	Drawings-only black and white line	276516	no	10				
	drawings	1c6bb8fd33009240ad95ae632499892c1a1 261bb						
Warnings:	<u> </u>		·					
Information	:							
		Total Files Size (in bytes)	69	91317				

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: ROBERT S. CRESWELL, MICHAEL ZOLNIEREK, MICHAEL W. REGELBRUGGE, AND

JIMMIE D. CHRYSLER

For: DIVERTER VALVE Examiner: John C. Fox

Serial No.: 10/595,281 Filed: April 4, 2006

Docket No.: 70038-0068 Group Art Unit: 3753

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this correspondence is, on the date shown below, being:

deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to the Box PCT, Commissioner for Patents, Alexandria, VA 22313-1450.

 ${\color{red} oxed{\boxtimes}}$ transmitted via EFS Web filing to the Patent and Trademark Office.

/Rebecca L Shilt/ Signature

Date: August 18, 2008

Rebecca L. Shilt

(type or print name of person certifying)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

RESPONSE TO RESTRICTION REQUIREMENT

Sir:

This paper responds to the Non-final Office Action mailed July 17, 2008.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Drawings begin on page 5 of this paper.

Remarks begin on page 6 of this paper.

Applicants: Filed:

ROBERT S. CRESWELL ET AL.

April 4, 2006

Serial No.: 10/595,281 Docket No.: 70038-0068

Page 2 of 6

Amendments to the Specification

Please amend the Specification by replacing the corresponding paragraphs with the following new paragraphs. Changes from the existing specification are shown in redline/strikeout form. Paragraph references are to the published application at US2007/0199599.

[0042] The opening 84 is positioned to be in registry with the termination point $\frac{76}{78}$, and the opening 86 is positioned to be in registry with the termination point 7876. Openings 88, 90 are positioned preferably along a diameter of the disk 14 to be within the flare portion 56 of the inlet conduit 54. Slots 92, 94 extend along the diameter of the disk 14 from the respective openings 88, 90 at the bearing face 82. The bearing face 82 comprises a smaller irregular contact surface 96 that might be formed by removing material from the bearing surface along its peripheral edges. The smaller contact surface 96 helps to reduce torque. As is conventional in ceramic disk valves, the contact surface 96 must be polished flat.

[0043] Referring now to Figs. 1, 5, and 6, the rotating ceramic disk 16 has a generally circular shape from which extend keys 98. The rotating ceramic disk 16 has a larger diameter than the fixed ceramic disk 14 and includes a bearing face 100 on one side and an outlet face 102 on the other side. The bearing face 100 has a smaller diameter contact surface 103 that is polished flat and is of a size no smaller than the contact surface 96 of the fixed disk 14. The rotating ceramic disk 16 has four pass through openings and a blind slot in the contact surface 103. Two center openings 104, 106 are disposed on a diameter of the disk 16 and are spaced from each other to be in registry with the openings 88, 90 in a first position of the rotating disk 16 relative to the fixed disk 14. A spray opening 108 is positioned to be in registry with one of the slots 92, 94 in the fixed disk 14 in a second position of the rotating disk 16 relative to the fixed disk 14, when simultaneously, the two center openings 104, 106 will not be in registry with the openings 88, 90. An elongated filter opening 110 is positioned near the perimeter 111 of the contact surface 102 103 to be in registry with opening 86 in the fixed disk 14 in a third position of the rotating disk 16 relative to the fixed disk 14. An elongated blind slot 112 is sized and positioned within the contact surface 103 to place the opening 84 into fluid communication with the slot 92 (both

Applicants: RO

ROBERT S. CRESWELL ET AL.

April 4, 2006

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Page 3 of 6

on the fixed disk 14) at the same time that the elongated filter opening 110 is in registry with the opening 86.

[0044] Looking now at Figs. 1, 7 and 8, the accessory mount 20 is a disk preferably formed of metal, such as brass, or a suitable polymer, such as Polyoxymethylene, and has an adhering surface 113 and an opposite outlet surface 114. The accessory mount 20 need <u>not</u> be formed of the same material as the housing 12, although for economic or aesthetic reasons, it may be preferable to do so. The adhering surface 113 is adapted to be fixed to the outlet face 102 of the rotating ceramic disk 16. Preferably the accessory mount 20 is adhered to the outlet face 102 using any suitable adhesive that will fix the adhering surface 112 to the outlet face 102 permanently, and within a maximum temperature range to be found in the application to which the valve 10 is to be used. An example is an epoxy.

[0053] In the first position, water enters the inlet conduit 54 from the faucet where it passes through the flare portion 56 and into the pass through openings 88, 90 of the fixed disk 14.

Opening 90-88 is blocked by the contact surface of the rotating ceramic disk 14, but opening 88 90 is in fluid communication with the elongated blind slot 112 by way of the slot 9294.

Consequently, water flows through the blind slot 112 to the opening 8486, which is in registry with the termination point 76. Water continues to flow through channel 68 to conduit 66, then to the filter inlet 60 and to the filtration unit (not shown). Water exiting the filtration unit enters the valve 10 through the filter outlet 62, then into the depending conduit 72, through channel 74 and to the termination point 78. Here, water flows through the termination point 78 which is in registry with opening 8684, and which in turn by the position of the outlet assembly 26, is in registry with the elongated filter opening 110 of the rotating ceramic disk 16. Simultaneously, water passing through the elongated filter opening 110 enters the annular blind slot 122 of the accessory mount, there to exit the valve 10 through the filer outlet opening 128. Preferably, the flow of filtered water is laminated through the laminator 136.

[0054] Figs. 14 and 15 illustrate the relative positions of the components in the second position. In the second position, water enters the inlet conduit 54 from the faucet where it passes through the flare portion 56 and into the pass through openings 88, 90 of the fixed disk 14. Opening \$8

Applicants: ROBERT S. CRESWELL ET AL.

Filed: April 4, 2006

Page 4 of 6

Serial No.: 10/595,281 Docket No.: 70038-0068

90 is blocked by the contact surface of the rotating ceramic disk 14, but opening 90-88 is in fluid communication with the spray opening 108 by way of the slot 9492. Simultaneously, water is blocked from entry into the filter inlet 60 of the housing 12 and from entry into the center openings 104, 106 of the rotating disk 16. Water flows through the spray opening 108 and into the groove 118 in the accessory mount 20 where it exits in a spray through the spray openings 120.

[0055] Figs. 16 and 17 illustrate the relative positions of the components in the third position. In the third position, water enters the inlet conduit 54 from the faucet where it passes through the flare portion 56 and into the pass through openings 88, 90 of the fixed disk 14. Since the pass through openings 88, 90 are in registry with the two center openings 104 and 106, water passes through the rotating ceramic disk 16 and out through the center aperture 116 in the accessory mount 20, which is also in registry with the center openings 104 and 106. Preferably, this flow of unfiltered water is aerated through the aerator 132.

[0058] Looking now at Figs. 19 and 20, the sealing rings 162, 164, and 166 are disposed, respectively in grooves 168, 170, and 172 in the face 52' of the upper body portion 34'. The groove 168 is formed at the periphery of the flare portion 56; the groove 170 is formed at the periphery of the channel 6874; and the groove 172 is formed at the periphery of the channel 7466. Preferably, at least a portion of each groove 162, 164, and 166 is dovetailed (see Fig. 20) to provide additional space for the sealing rings to deform when they are compressed by the fixed disk 14' and by water pressure in the adjacent channel. For example, the groove along the sides of the channel might not be dovetailed but the groove at the ends of the channel may be dovetailed. In a preferred embodiment, the grooves 162, 164, and 166 are countersunk approximately .050 inches. Also, a notch 174 is formed in the upper body portion 34' to accommodate a tab (not shown) on the fixed disk 14' so that the fixed disk can be properly aligned relative to the housing 12' and fixed against rotation.

Applicants: ROBERT S. CRESWELL ET AL. Serial No.: 10/595,281 Filed: April 4, 2006 Docket No.: 70038-0068

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Amendments to the Drawings

Please amend the drawings by substituting replacement sheets 2, 3, and 5–12 for corresponding sheets in the application. Replacement sheets so marked are attached, as are annotated copies of the replacement sheets with the proposed changes marked in red.

Applicants: ROBERT S. CRESWELL ET AL.

Filed: April 4, 2006

Serial No.: 10/595,281 Docket No.: 70038-0068

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Remarks

Objections to the Specification and Drawings

The informalities in the drawings and specification identified by the Examiner are noted

with appreciation. Appropriate amendments to the specification and drawings have been made

to clarify the issues raised by the Examiner.

It is to be noted that water flow in the first position takes the following path through

respective passages: $54 \rightarrow 56 \rightarrow 90 \rightarrow 94 \rightarrow 112 \rightarrow 86 \rightarrow 60 \rightarrow 62 \rightarrow 84 \rightarrow 110 \rightarrow 122 \rightarrow 128$ and out.

Water flow in the second position takes the following path: $54 \rightarrow 56 \rightarrow 88 \rightarrow 92 \rightarrow 108 \rightarrow 118$ and

out. Water flow in the third position takes the following path: $54 \rightarrow 56 \rightarrow 88$, $90 \rightarrow 104$, $106 \rightarrow 116$

and out.

Restriction Requirement

In response to the Examiner's requirement for restriction, Applicants respectfully elect

Figures 1–17 without traverse. Claims 1–9 and 14 are drawn to all embodiments. Claim 10 is

drawn to the embodiment of the thrust bearing illustrated in Figs. 1–17. Claims 11 and 12 are

drawn to the embodiment of the thrust bearing illustrated in Figs. 18–20. Claim 13 is drawn to

the embodiment of the thrust bearing illustrated in Figs. 21-23. Claims 15–18 are drawn to the

embodiments of the seals illustrated Figs. 18–23.

Any questions concerning the foregoing can be directed to the undersigned.

Respectfully submitted,

ROBERT S. CRESWELL ET AL.

Date: August 18, 2008

By: /Joel E Bair/

Joel E. Bair, Reg. No. 33,356

McGarry Bair PC

32 Market Ave. SW, Suite 500

Grand Rapids, Michigan 49503

616-742-3500

jeb@mcgarrybair.com

G0395757.DOC

Annotated Sheet 2/13

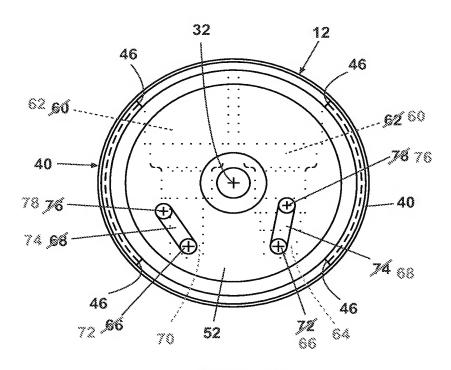


Fig. 2

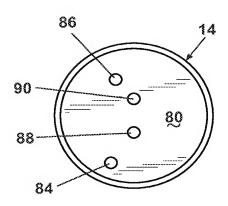


Fig. 3

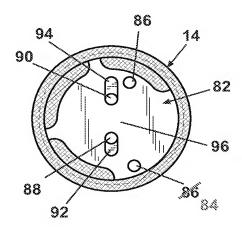
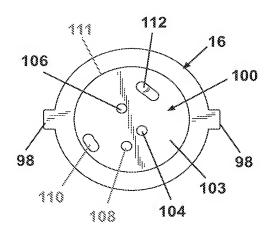


Fig. 4

Annotated Sheet 3/13



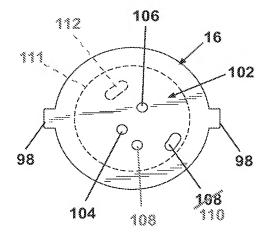
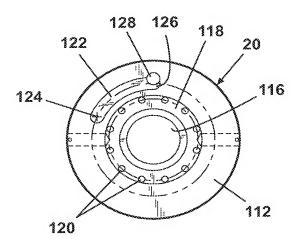


Fig. 5

Fig. 6



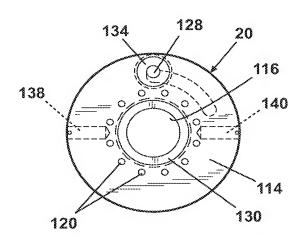


Fig. 7

Fig. 8

Appl. No. 10/595,281 Amdt. Dated August 18, 2008 Reply to Office action of July 17, 2008 Annotated Sheet Showing Changes

Annotated Sheet 5/13

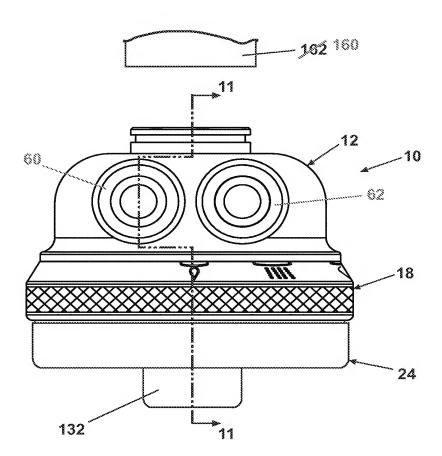


Fig. 10

Annotated Sheet **6/13**

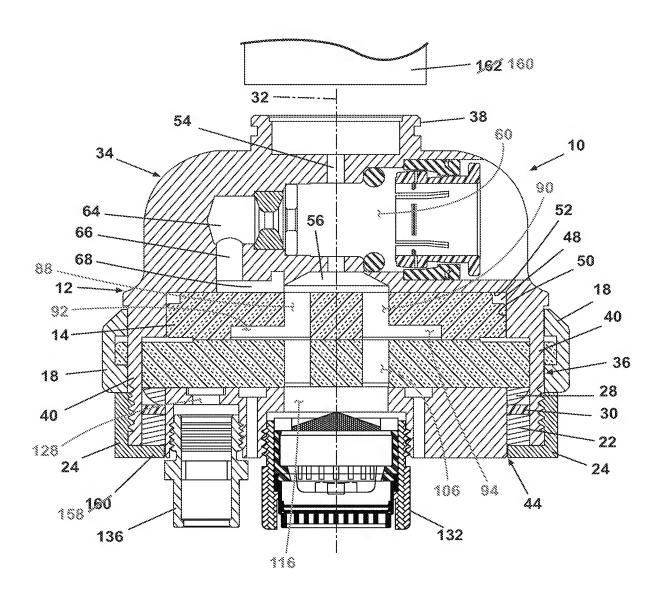


Fig. 11

Annotated Sheet **7/13**

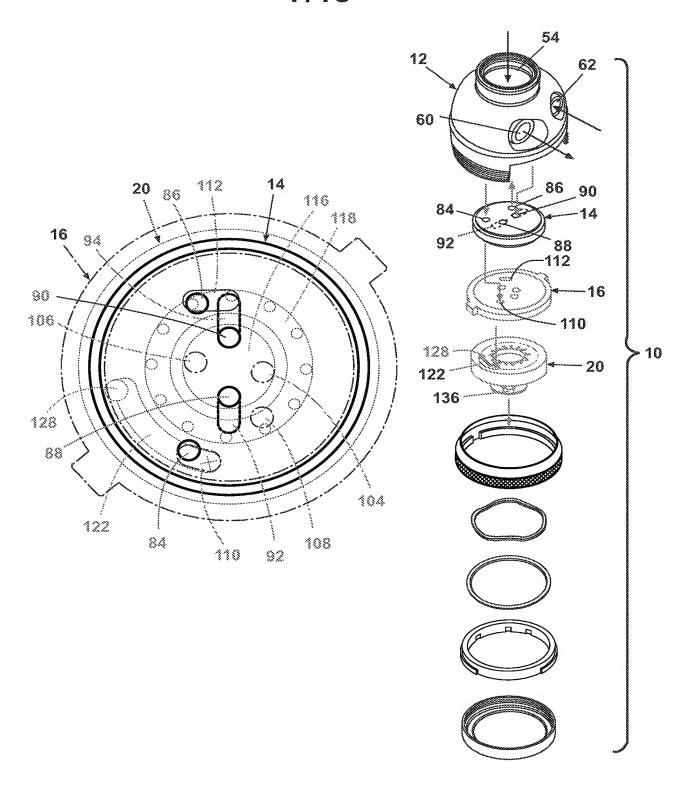


Fig. 12

Fig. 13

Annotated Sheet 8/13

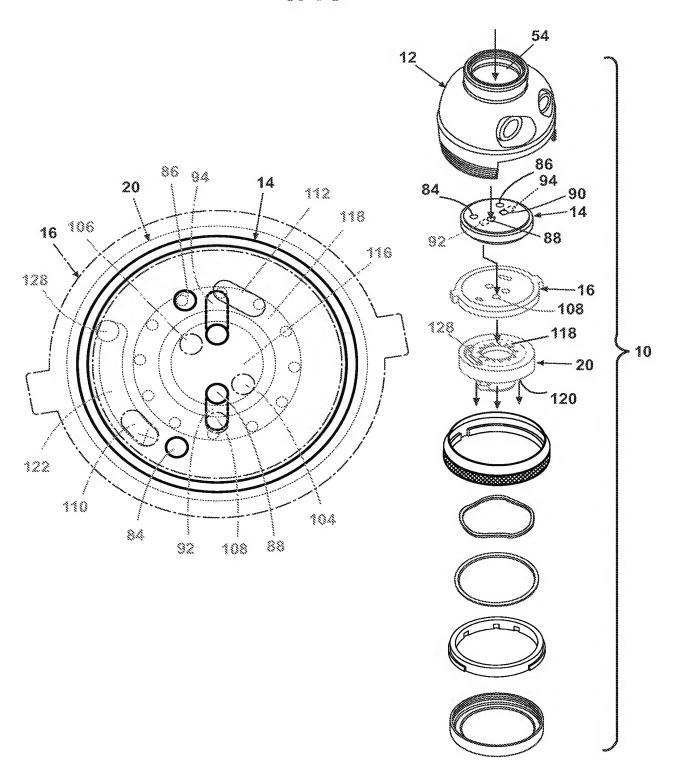


Fig. 14

Fig. 15

Annotated Sheet 9/13

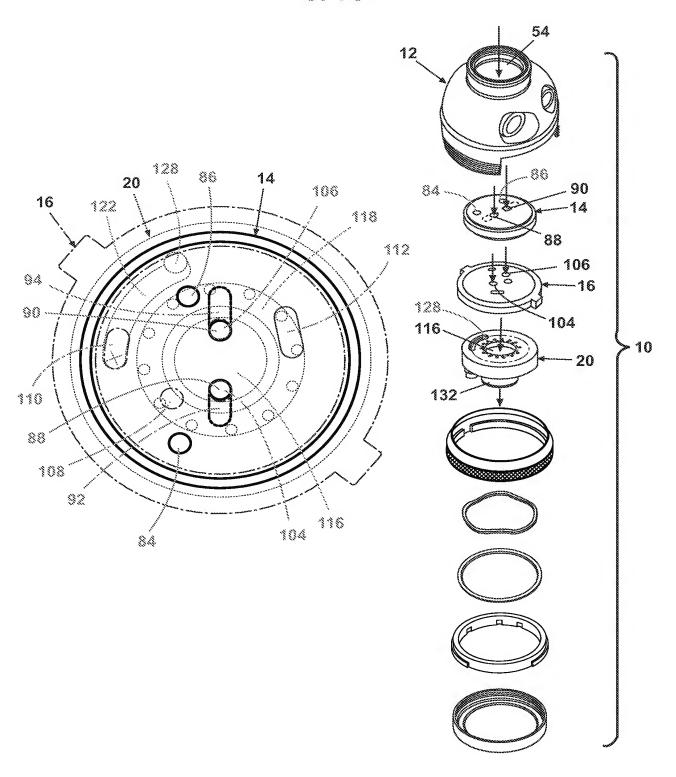


Fig. 16

Fig. 17

Appl. No. 10/595,281 Amdt. Dated August 18, 2008 Reply to Office action of July 17, 2008 Annotated Sheet Showing Changes

Annotated Sheet 10/13

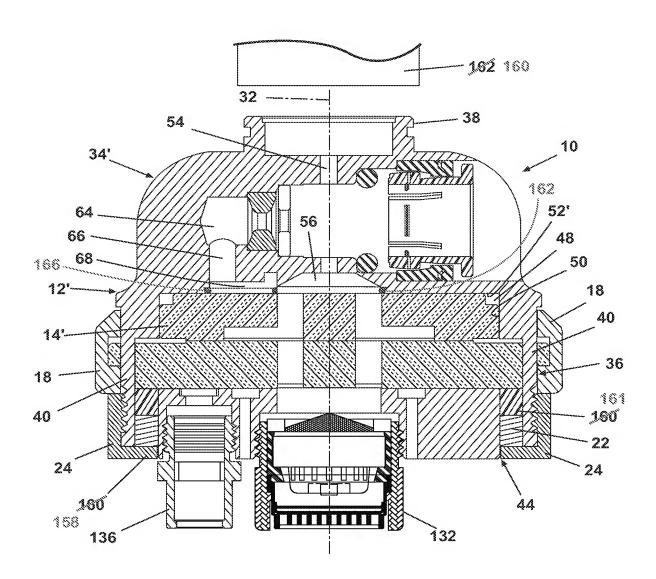


Fig. 18

Annotated Sheet 11/13

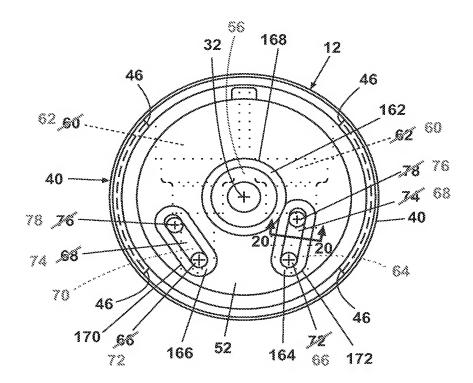


Fig. 19

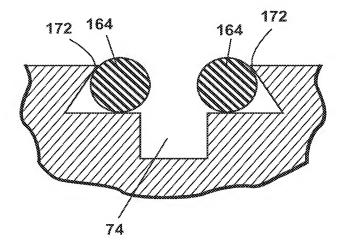


Fig. 20

Annotated Sheet 12/13

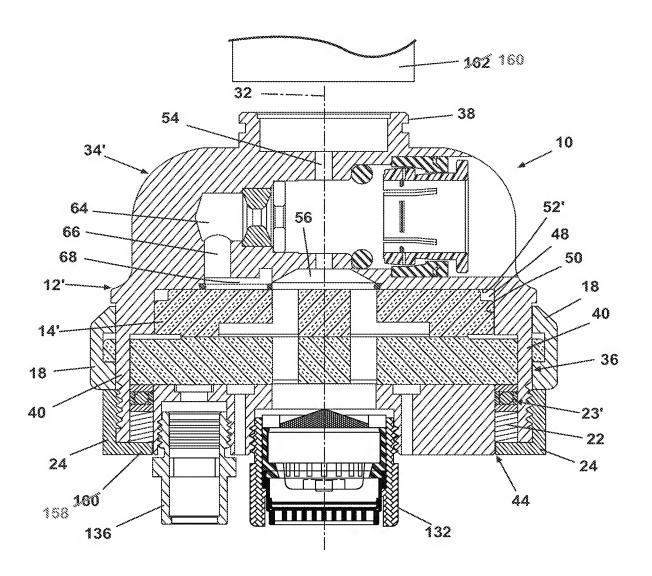


Fig. 21

Replacement Sheet 2/13

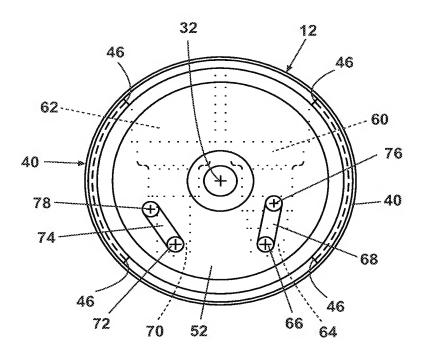


Fig. 2

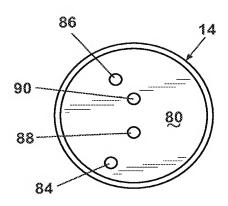


Fig. 3

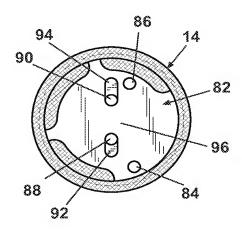
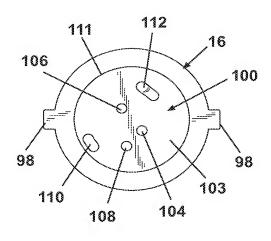


Fig. 4

Replacement Sheet 3/13



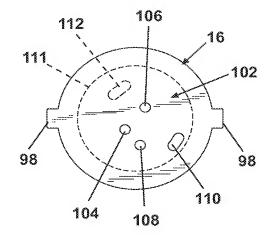
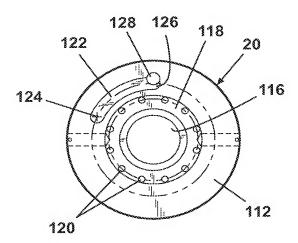


Fig. 5

Fig. 6



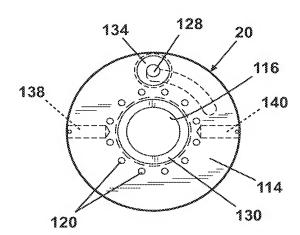


Fig. 7

Fig. 8

Appl. No. 10/595,281 Amdt. Dated August 18, 2008 Reply to Office action of July 17, 2008 Annotated Sheet Showing Changes

Replacement Sheet 5/13

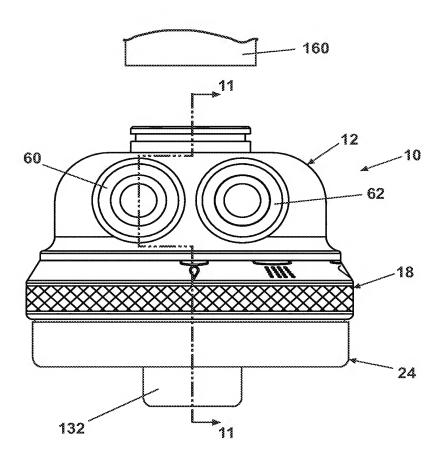


Fig. 10

Replacement Sheet 6/13

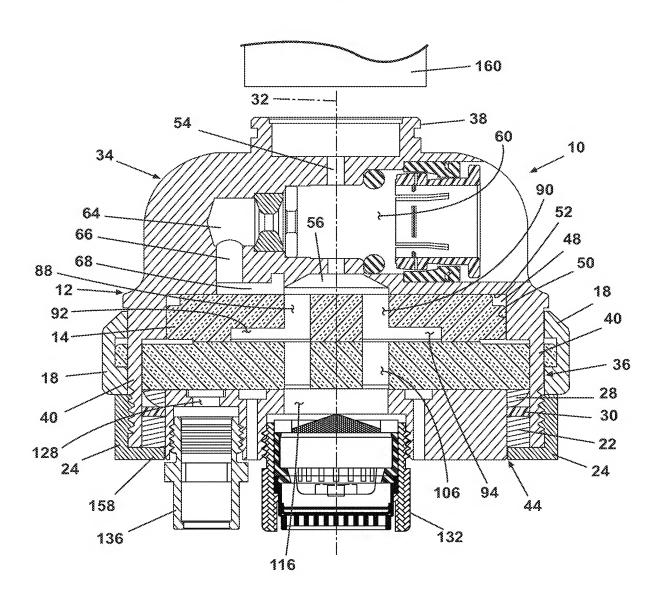


Fig. 11

Replacement Sheet **7/13**

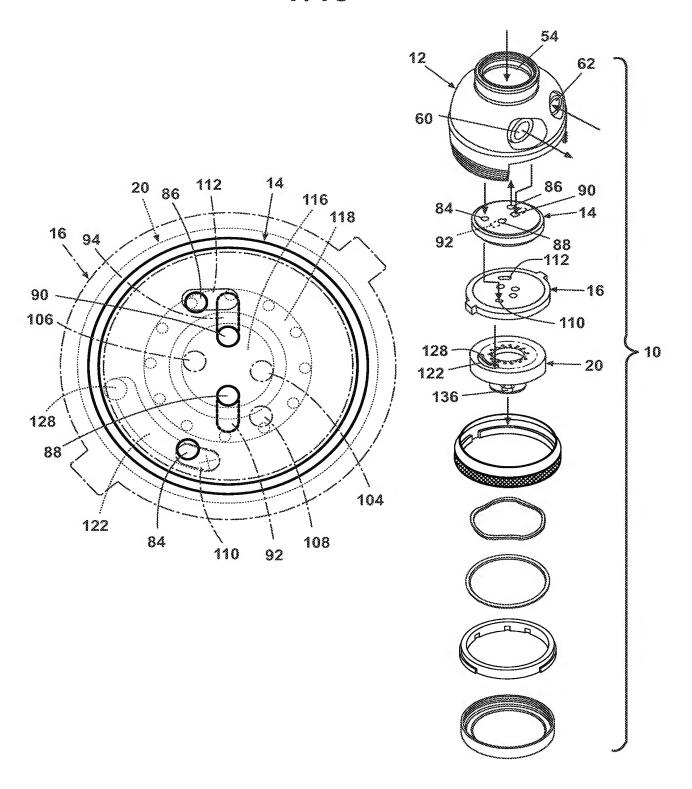


Fig. 12

Fig. 13

Replacement Sheet 8/13

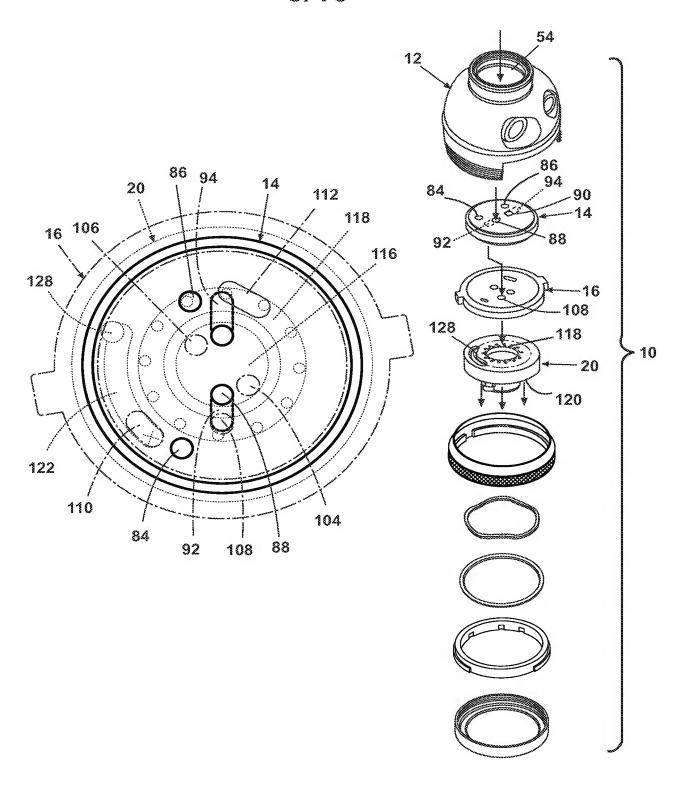


Fig. 14

Fig. 15

Replacement Sheet 9/13

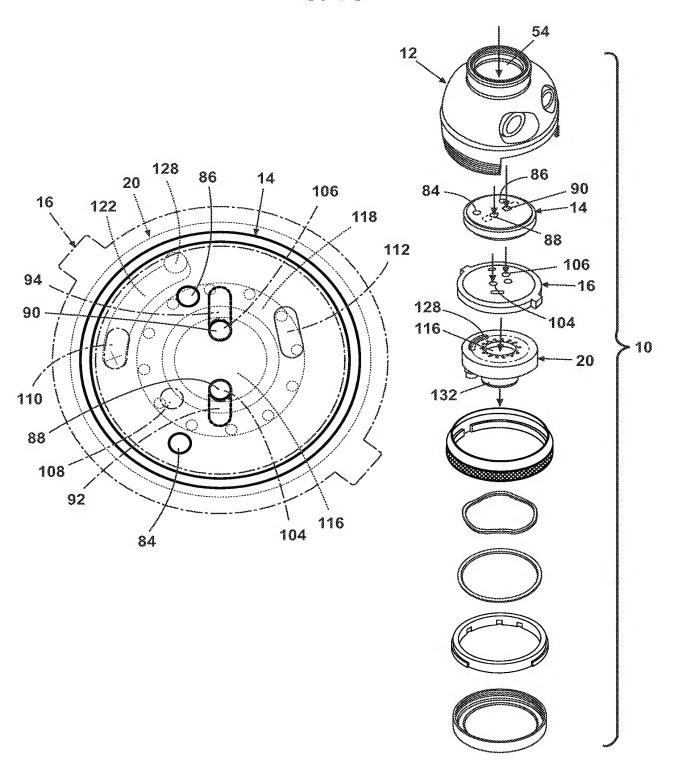


Fig. 16

Fig. 17

Replacement Sheet 10/13

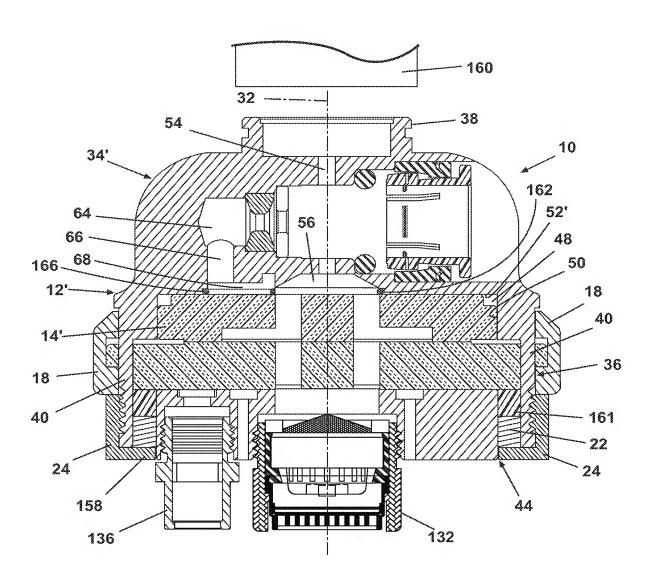


Fig. 18

Replacement Sheet 11/13

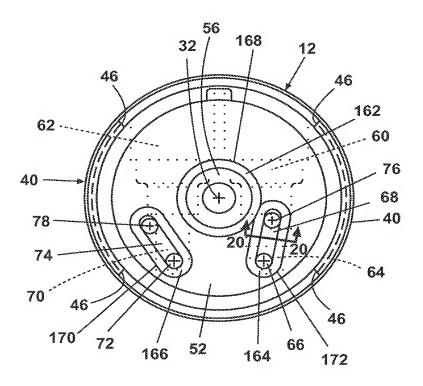


Fig. 19

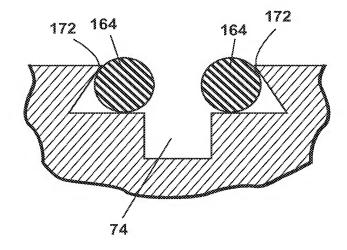


Fig. 20

Replacement Sheet 12/13

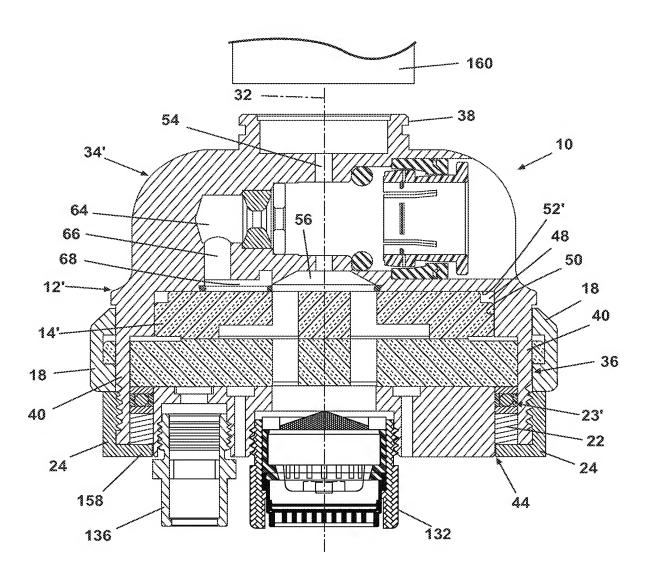


Fig. 21





United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,281	11/22/2006	Robert S. Creswell	70038-0068	6682
20915 MCGARRY B.	7590 09/10/2008 A ID PC		EXAM	INER
32 Market Ave			FOX, JO	OHN C
SUITE 500 GRAND RAPI	DS, MI 49503		ART UNIT	PAPER NUMBER
	,		. 3753	
			MAIL DATE	DELIVERY MODE
			09/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
		CRESWELL ET AL.
Office Action Summary	10/595,281	
• • • • • • • • • • • • • • • • • • •	Examiner	Art Unit
The MAILING DATE of this communication app	John Fox ears on the cover sheet with the c	3753
Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA- Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period was Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	I. lely filed the mailing date of this communication. 0 (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 18 Au	<u>ıgust 2008</u> .	
2a) This action is FINAL . 2b) ⊠ This	action is non-final.	
3) Since this application is in condition for allowar		
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	3 O.G. 213.
Disposition of Claims		
4)⊠ Claim(s) <u>1-18</u> is/are pending in the application.		
4a) Of the above claim(s) <u>11-13 and 15-18</u> is/ar	e withdrawn from consideration.	
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>1 and 5-10</u> is/are rejected.		
7)⊠ Claim(s) <u>2-4 and 14</u> is/are objected to.		
8) Claim(s) are subject to restriction and/or	election requirement.	
Application Papers		
9)☐ The specification is objected to by the Examine	:	
10)⊠ The drawing(s) filed on <u>18 August 2008</u> is/are:		o by the Examiner.
Applicant may not request that any objection to the o	rawing(s) be held in abeyance. See	37 CFR 1.85(a).
Replacement drawing sheet(s) including the correcti	on is required if the drawing(s) is obj	ected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form PTO-152.
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)	-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:1. ☐ Certified copies of the priority documents	have been received	
Certified copies of the priority documents Certified copies of the priority documents		on No
3. ☐ Copies of the certified copies of the priori		
application from the International Bureau	-	· ·
* See the attached detailed Office action for a list of	of the certified copies not receive	d.
Attachment(s)		
1) Notice of References Cited (PTO-892)	4) Interview Summary	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:	

Application/Control Number: 10/595,281

Art Unit: 3753

This action is responsive to the communication filed August 18, 2008.

The substitute drawings are noted with appreciation.

Claims 11-13 and 15-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piggott (US 3,516, 611) in view of Kuran et al, of record.

It is believed that the pertinence of the Piggot reference is readily apparent. Elements 23 and 24 rotate together. Element 24 is read as an accessory case. The discs 22 and 23 are not made of ceramic. Kuran et al show a diverter valve with the two discs made of ceramic, a well known construction. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used ceramic to make the discs 22, 23 of Piggot to improve the sealing therein and under the rationale set forth in KSR v. Teleflex, 550 U.S. ____, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007) that the simple substitution of one known element for another to obtain predictable results is obvious.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Piggott in view of Kuran et al, as applied above, and further in view of Chow et al (US 4,534,512).

Application/Control Number: 10/595,281

Art Unit: 3753

Piggott, as modified, shows the claimed device except for an aerated flow nozzle, which is common and shown by Chow et al, see 134 for example. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such an aerated flow nozzle in the device of Piggott, as modified, to similarly provide aerated flow and under the rationale set forth in KSR v. Teleflex, 550 U.S. ____, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007) that the simple substitution of one known element for another to obtain predictable results is obvious.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piggott in view of Kuran et al and further in view of d'Agostino et al (US 5,520,216).

Piggott, as modified, shows the claimed device except for pressure balancing. D'Agostino shows a rotary valve with pressure balancing of the rotor to eliminate axial forces. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have similarly provided the valve of Piggott, as modified, with pressure balancing to similarly eliminate axial forces.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piggott in view of Kuran et al and further in view of Acker (US 5,275,206).

Piggott, as modified, shows the claimed device except for a thrust bearing. Acker teaches a rotary valve with a thrust washer 81 and wave springs 78 for reducing friction on the rotor. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used such a thrust bearing in the valve of Piggott, as modified, to similarly reduce friction on the rotor thereof.

Art Unit: 3753

Claims 2-4 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912.

The examiner can normally be reached on Monday-Saturday from 10am-6pm (Hoteling Program).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/595,281

Art Unit: 3753

Primary Examiner Art Unit 3753 Page 5

Notice of References Cited Application/Control No. 10/595,281 Examiner John Fox Applicant(s)/Patent Under Reexamination CRESWELL ET AL. Art Unit Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	Α	US-3,516,611 A	06-1970	PIGGOTT RICHARD G	239/394
*	В	US-3,814,326 A	06-1974	Bartlett, Lawrence D.	239/394
*	С	US-3,850,351 A	11-1974	Yoshihara, Tetsuya	239/393
*	D	US-4,498,611 A	02-1985	Yoshihara, Tetsuya	222/599
*	E	US-4,534,512 A	08-1985	Chow et al.	239/394
*	F	US-4,577,785 A	03-1986	Wakabayashi, Senzo	222/598
*	G	US-4,747,580 A	05-1988	Tinnes et al.	222/598
*	Н	US-5,275,206 A	01-1994	Acker, Richard C.	137/625.46
*	_	US-5,520,216 A	05-1996	d'Agostino et al.	137/862
*	J	US-6,575,196 B1	06-2003	Creswell, Robert S.	137/625.46
*	K	US-7,204,271 B2	04-2007	Kasai et al.	137/625.46
*	L	US-7,314,062 B2	01-2008	Chen, Chuan-Lung	137/625.41
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Electronic Ac	Electronic Acknowledgement Receipt						
EFS ID:	4586735						
Application Number:	10595281						
International Application Number:							
Confirmation Number:	6682						
Title of Invention:	EXHIBIT E DIVERTER VALVE						
First Named Inventor/Applicant Name:	Robert S. Creswell						
Customer Number:	20915						
Filer:	Joel Evan Bair						
Filer Authorized By:							
Attorney Docket Number:	70038-0068						
Receipt Date:	09-JAN-2009						
Filing Date:	22-NOV-2006						
Time Stamp:	15:22:41						
Application Type:	U.S. National Stage under 35 USC 371						

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$169
RAM confirmation Number	714
Deposit Account	502003
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. 1.492 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		G0430833.PDF	134627		
'		G0430033.i D1	2e8f79f9771c7740cfd5ab2ad39db55b8729 28f5	yes	
	Multip	art Description/PDF files	in .zip description		
13	Document De	Start	Eı	nd	
	Amendment/Req. Reconsiderati	1		1	
	Claims	2	4		
	Applicant Arguments/Remarks	5		7	
Warnings:					
Information:					
2	Fee Worksheet (PTO-06)	fee-info.pdf	32036	no	2
	,	'	f807896220e9707a4167897100a4166a8af7 7d60		
Warnings:					
Information:					

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Patent Application Fee Transmittal						
Application Number:	10:	595281				
Filing Date:	22-	-Nov-2006				
Title of Invention:	DIVERTER VALVE					
First Named Inventor/Applicant Name:	Ro	bert S. Creswell				
Filer:	Joe	el Evan Bair/Rebecc	a Shilt			
Attorney Docket Number:	70	038-0068				
Filed as Small Entity						
U.S. National Stage under 35 USC 371 Filing	Fee	s				
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Pages:						
Claims:						
Claims in excess of 20		2615	4	26	104	
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:						
Post-Allowance-and-Post-Issuance:						
Extension-of-Time:						

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	2251	1	65	65
Miscellaneous:				
	169			

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: ROBERT S. CRESWELL, MICHAEL ZOLNIEREK, MICHAEL W. REGELBRUGGE, AND

JIMMIE D. CHRYSLER

For: DIVERTER VALVE Examiner: John C. Fox

Serial No.: 10/595,281 Filed: April 4, 2006

Docket No.: 70038-0068 Group Art Unit: 3753

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this correspondence is, on the date shown below, being:

deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to the Box PCT, Commissioner for Patents, Alexandria, VA 22313-1450.

 ${\color{orange} \boxtimes}\$ transmitted via EFS Web filing to the Patent and Trademark Office.

/Rebecca L Shilt/

Signature

Date: January 9, 2009 Rebecca L. Shilt

(type or print name of person certifying)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Sir:

This paper responds to the Non-final Office Action mailed September 10, 2008.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 5 of this paper.

Serial No.: Docket No.: 10/595,281 70038-0068

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A diverter valve for selectively controlling the flow of fluid from a fluid source to one of at least two fluid outlets, the valve comprising:

a housing defining at least one flow passage and having an outlet for diverting fluid from the fluid source to a device, and an inlet for receiving fluid from the device;

a first ceramic plate mounted to the housing and fixed against rotation, the first ceramic plate having at least one flow passage in registry with the housing flow passage; and

a second ceramic plate rotatably mounted within the housing, the second ceramic plate having at least one flow passage that can be selectively placed into fluid communication with the housing flow passage; and the diverter valve characterized by:

an accessory case fixedly mounted to the second ceramic plate, the accessory case having at least one flow passage in registry with the at least one second ceramic plate flow passage, wherein the at least one flow passage in the accessory case is configured to mount a flow adapter,

whereby rotation of the second ceramic plate can selectively cause fluid to flow through the device, to bypass the device, and to flow through the at least one flow passage in the accessory case.

- 2. (Previously Presented) The diverter valve of claim 1 wherein the accessory case is adhered to the second ceramic plate.
- 3. (Previously Presented) The diverter valve of claim 2 wherein the accessory case is adhered to the second ceramic plate by an adhesive.
- 4. (Previously Presented) The diverter valve of claim 2 wherein the adhesive is epoxy.

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- 5. (Previously Presented) The diverter valve of claim 1 wherein the accessory case mounts two flow adapters.
- 6. (Previously Presented) The diverter valve of claim 5 wherein one flow adapter is for aerated flow and a second flow adapter is for stream flow.
- 7. (Currently Amended) The diverter valve of claim 1 wherein <u>some of</u> the flow passages in the housing and the accessory case are configured and oriented <u>radially</u> to substantially balance hydraulic pressures <u>acting on radially across</u> the ceramic plates, <u>whereby to minimize separation of the ceramic plates from each other.</u>
- 8. (Previously Presented) The diverter valve of claim 7 wherein a flow passage in the housing is open to and parallel with the first ceramic plate whereby pressure in the flow passage can act against the first ceramic plate to urge it toward the second ceramic plate.
- 9. (Previously Presented) The diverter valve of claim 1 further comprising a thrust bearing and a retainer, wherein the thrust bearing is disposed between the retainer and the second ceramic plate, and bears against the second ceramic plate with reduced friction to enable the second ceramic plate to rotate with lower torque.
- 10. (Previously Presented) The diverter valve of claim 9 wherein the thrust bearing comprises a wave spring and washer.
- 11. (Previously Presented) The diverter valve of claim 9 wherein the thrust bearing comprises a low friction washer.
- 12. (Previously Presented) The diverter valve of claim 11 wherein the low friction washer comprises PTFE.
- 13. (Previously Presented) The diverter valve of claim 9 wherein the thrust bearing is a roller bearing.
- 14. (Previously Presented) The diverter valve of claim 1 wherein the first ceramic plate is adhered to the housing.
- 15. (Previously Presented) The diverter valve of claim 1 further comprising at least one ring seal between the first ceramic plate and the housing.

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- 16. (Previously Presented) The diverter valve of claim 15 comprising three ring seals between the first ceramic plate and the housing.
- 17. (Previously Presented) The diverter valve of claim 15, wherein the ring seal is seated within a groove.
- 18. (Previously Presented) The diverter valve of claim 17 wherein the groove is a dovetail groove.
- 19. (New) A diverter valve for selectively controlling the flow of fluid from a fluid source to one of at least two fluid outlets, the valve comprising:
 - a housing defining at least one flow passage;
- a first ceramic plate mounted to the housing and fixed against rotation, the first ceramic plate having at least one flow passage in registry with the housing flow passage; and
- a second ceramic plate rotatably mounted within the housing, the second ceramic plate having at least one flow passage that can be selectively placed into fluid communication with the housing flow passage; and

an accessory case adhered to the second ceramic plate, the accessory case having at least one flow passage in registry with the at least one second ceramic plate flow passage, wherein the at least one flow passage in the accessory case is configured to mount a flow adapter.

- 20. (New) The diverter valve of claim 19 wherein the accessory case is adhered to the second ceramic plate by an adhesive.
 - 21. (New) The diverter valve of claim 20 wherein the adhesive is epoxy.
- 22. (New) The diverter valve of claim 19 wherein the accessory case mounts two flow adapters.
- 23. (New) The diverter valve of claim 22 wherein one flow adapter is for aerated flow and a second flow adapter is for stream flow.
- 24. (New) The diverter valve of claim 19 wherein the first ceramic plate is adhered to the housing.

Applicants: Filed: Page 5 of 7

ROBERT S. CRESWELL ET AL.

April 4, 2006

Serial No.: Docket No.: 10/595,281 70038-0068

Remarks

Claims 1-18 were in the application as examined. Claims 11-13 and 15-18 are considered withdrawn as being drawn to a nonelected species. By the foregoing amendments, claims 1 and 7 are amended without prejudice and new claims 19-24 are added. No new matter is added by the amendments, and further examination and consideration of claims 1-24 is respectfully requested in view of the foregoing amendment and the following remarks.

Rejections under §103

Claims 1 and 5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,516,611 to Piggott in view of U.S. Patent No. 5,701,934 to Kuran et al. The rejection is respectfully traversed.

Substituting the ceramic disks of Kuran et al. for the two plates 23 and 24 of Piggott, as suggested by the Examiner, would not reach the invention. Claim 1 as amended requires an inlet and an outlet for connecting to another device. Both Piggott and Kuran disclose valves with multiple flow outlets only. Applicant's invention is a diverter that diverts fluid flow through an outlet to another device and recaptures that flow through an second inlet for further flow through the diverter. Consequently, the flow passages through the inventive valve are more complex than a simple nozzle. Piggott discloses four nozzle tips 29 as different outlets and Kuran discloses two outlets 30 and 72. Neither discloses a second inlet. Moreover, neither Piggott nor Kuran disclose structure that enables one to selectively cause fluid to flow through the device, to bypass the device, and to flow through the flow passages in the accessory case. Claim1 is thus distinguishable from the alleged combination and therefore patentable. And because claim 5 depends from claim 1, it is patentable for the same reasons.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,516,611 to Piggott in view of U.S. Patent No. 5,701,934 to Kuran et al., and further in view of U.S. Patent No. 4,534,512 to Chow et al. The rejection is respectfully traversed.

Claim 6 depends indirectly from claim 1 and is therefore patentable for the same reasons that claim 1 is patentable. Chow et al. discloses nothing more relevant to the invention than is

Applicants: Filed:

 $Robert\,S.\,Creswell\,et\,al.$

April 4, 2006

Serial No.: Docket No.: 10/595,281 70038-0068

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already disclosed in Piggott and Kuran. Chow is cited for its disclosure of an aerated flow nozzle, a feature already disclosed at 72 in Kuran. Chow is nothing more than a nozzle for adjusting outlet flow through multiple outlets, similar to Piggott and Kuran that show outlet flow through different outlets. Nothing in the cited references suggests a diverter valve of the invention that includes a second inlet with its more complex internal flow structure.

Claims 7-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,516,611 to Piggott in view of U.S. Patent No. 5,701,934 to Kuran et al., and further in view of U.S. Patent No. 5,520,216 to d'Agostino et al. The rejection is respectfully traversed.

Claims 7 and 8 depend directly or indirectly from claim 1 and are therefore patentable for the same reasons as claim 1. The structure disclosed in d'Agostino balances the forces acting axially on the rotary valve member. (Col. 4, Il. 16-20) In contrast, claim 7 requires that some of the flow passages in the housing and the accessory case be configured and oriented radially to substantially balance hydraulic pressures radially across the ceramic plates. Nothing in d'Agostino is concerned about radial balancing because there are not two discs to keep for separating and causing leakage. Because the elements of claim 7 are not found in the alleged combination, claim 7 is patentable over the cited art. And because claim 8 depends from claim 7, it is likewise patentable for the same reasons. Moreover, claim 8 requires a flow passage open to and parallel to the first ceramic plate, a feature not disclosed or suggested by d'Agostino. Claim 8 is therefore also patentable.

Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,516,611 to Piggott in view of U.S. Patent No. 5,701,934 to Kuran et al., and further in view of U.S. Patent No. 5,275,206 to Acker. The rejection is respectfully traversed.

Claims 9 and 10 depend directly or indirectly from claim 1 and are therefore patentable for the same reasons as claim 1. Acker adds nothing to show the type of diverter claimed.

Applicants: Filed: Page 7 of 7 April 4, 2006

ROBERT S. CRESWELL ET AL.

Serial No.: Docket No.:

10/595,281 70038-0068

Objections

Claim 2-5 and 14 are objected to as being dependant upon a rejected base claim but

otherwise allowable. While Applicants acknowledge with thanks the Examiner's determination

of allowability, it is believed that claims 2-4 and 14 are allowable without further amendment in

view of the foregoing remarks.

Moreover, since claim 1 is a generic claim that is believed to be patentable over the art of

record, and claims 11-13 and 15-18 depend from claim, further consideration of the withdrawn

claims is respectfully requested.

In addition, Applicants have added new claims 19-24 which are, in effect, claims 2-5 and

14 rewritten into patentable form.

Conclusion

For the reasons discussed above, claims 1-24 are allowable over the prior art. If there are

any remaining issues which the Examiner believes may be resolved in an interview, the

Examiner is respectfully invited to contact the undersigned. Early notification of the allowability

is respectfully requested. Any questions concerning the foregoing can be directed to the

undersigned.

Respectfully submitted,

ROBERT S. CRESWELL ET AL.

Date: January 9, 2009

By: /Joel E Bair/

Joel E. Bair, Reg. No. 33,356

McGarry Bair PC

32 Market Ave. SW, Suite 500

Grand Rapids, Michigan 49503

616-742-3500

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EXHIBIT F



UNITED STATES PATENT AND TRADEMARK OFFICE

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NOTICE OF ALLOWANCE AND FEE(S) DUE

20915

7590

03/18/2009

MCGARRY BAIR PC 32 Market Ave. SW SUITE 500 GRAND RAPIDS, MI 49503

EXAMINER					
FOX, JOHN C					
ART UNIT	PAPER NUMBER				

3753

DATE MAILED: 03/18/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,281	11/22/2006	Robert S. Creswell	70038-0068	6682

TITLE OF INVENTION: DIVERTER VALVE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	06/18/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.
- II. PART B FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

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indicated unless correct maintenance fee notifica	ed below or directed oth tions.	nerwise in Block 1, by (a					correspondence address as rate "FEE ADDRESS" for		
CURRENT CORRESPOND	ENCE ADDRESS (Note: Use Bl	ock 1 for any change of address)	Feet pape	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
20915	7590 03/18	/2009		Cer	tificate c	of Mailing or Transn	nission		
MCGARRY B 32 Market Ave. SUITE 500	SW		I he Stat addı tran	reby certify that thes Postal Service weeksed to the Mail smitted to the USP	is Fee(s) vith suffice Stop IS TO (571)	Transmittal is being cient postage for first SSUE FEE address (273-2885, on the date of the control of the cont	deposited with the United t class mail in an envelope above, or being facsimile te indicated below.		
GRAND RAPII	OS, MI 49503						(Depositor's name)		
							(Signature)		
							(Date)		
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORI	NEY DOCKET NO.	CONFIRMATION NO.		
10/595,281	11/22/2006	•	Robert S. Creswell		7	70038-0068	6682		
TITLE OF INVENTION	: DIVERTER VALVE								
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE		
nonprovisional	YES	\$755	\$300	\$0		\$1055	06/18/2009		
EXAM	IINER	ART UNIT	CLASS-SUBCLASS						
FOX, J	OHN C	3753	137-625460						
☐ "Fee Address" ind	oondence address (or Cha B/122) attached. lication (or "Fee Address)2 or more recent) attach	nge of Correspondence "Indication form	registered attorney or agent) and the names of up to						
PLEASE NOTE: Un	less an assignee is ident th in 37 CFR 3.11. Comp	ified below, no assignee	THE PATENT (print or type data will appear on the pent of the pent	atent. If an assign assignment.			cument has been filed for		
Please check the appropr	riate assignee category or	categories (will not be pr	rinted on the patent):	Individual 🖵 Co	orporatio	n or other private gro	up entity Government		
	are submitted: No small entity discount p # of Copies	permitted)	b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is attacl	hed.	hown above) iciency, or credit any extra copy of this form).		
5. Change in Entity Sta	itus (from status indicate as SMALL ENTITY statu		b. Applicant is no lon	ger claiming SMAI	LL ENTI	TY status. See 37 CF	R 1.27(g)(2).		
NOTE: The Issue Fee an	d Publication Fee (if req		d from anyone other than t				e assignee or other party in		
•				Date					
This collection of inform	nation is required by 37 (FR 1 311 The information	on is required to obtain or a	etain a benefit by t	he public	which is to file (and	by the LISPTO to process)		
an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	tiality is governed by 35 d application form to the ions for reducing this butterigina 22313-1450. DC	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to th NOT SEND FEES OR	1.14. This collection is estanded to the individual of the individ	imated to take 12 indual case. Any color, U.S. Patent and DTHIS ADDRESS	minutes tomments Tradema S. SEND	to complete, including on the amount of tin ark Office, U.S. Depa TO: Commissioner f	g gathering, preparing, and he you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450,		

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FILING DATE FIRST NAMED INVENTOR		CONFIRMATION NO.	
10/595,281	11/22/2006	Robert S. Creswell	70038-0068	6682	
20915 75	90 03/18/2009		EXAM	INER	
MCGARRY BAI	R PC		FOX, JOHN C		
32 Market Ave. SV	V		ART UNIT	PAPER NUMBER	
SUITE 500 GRAND RAPIDS,	MI 40503		3753		
OKAND KALIDS,	1111 43303		DATE MAILED: 03/18/200	9	

Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)					
Nation of Allowability	10/595,281	CRESWELL ET AL.					
Notice of Allowability	Examiner	Art Unit					
	John Fox	3753					
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	olication. If not included will be mailed in due course. THIS					
1. This communication is responsive to the amendment of Ja.	nuary 9, 2009.						
2. The allowed claim(s) is/are <u>19-24</u> .							
3. ☐ Acknowledgment is made of a claim for foreign priority ur a) ☐ All b) ☐ Some* c) ☐ None of the:							
1. Certified copies of the priority documents have							
2. Certified copies of the priority documents have							
3. Copies of the certified copies of the priority do	cuments have been received in this r	national stage application from the					
International Bureau (PCT Rule 17.2(a)).							
* Certified copies not received:							
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.							
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give							
5. CORRECTED DRAWINGS (as "replacement sheets") mus	et be submitted.						
(a) ☐ including changes required by the Notice of Draftspers	on's Patent Drawing Review (PTO-	948) attached					
1) hereto or 2) to Paper No./Mail Date							
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the O	ffice action of					
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the							
6. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT							
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5 Notice of Informal D	otont Application					
 Notice of References Cited (PTO-692) Dotice of Draftperson's Patent Drawing Review (PTO-948) 	5. Notice of Informal Pa						
2. In Notice of Draitperson's Patent Drawing Review (P10-946)	6. ☐ Interview Summary Paper No./Mail Date						
3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	Paper No./Mail Dat 7. ⊠ Examiner's Amendn	nent/Comment					
4. Examiner's Comment Regarding Requirement for Deposit	8. 🗌 Examiner's Stateme	nt of Reasons for Allowance					
of Biological Material	9. Other						
/John Fox/							
Primary Examiner Art Unit: 3753							

This Action is responsive to the communication filed January 9, 2009.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

Page 2

- Claims 1-18, drawn to a bypass valve, classified in class 137, subclass 625.29.
- II. Claims 19-24, drawn to a diverter valve, classified in class 137, subclass 625.46.

Inventions I and II are directed to related combinations. The related inventions are distinct if: (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed are not capable of use together and can have a materially different mode of operation, function, or effect. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Amended claims 1-18 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: see above.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 1-18 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Application/Control Number: 10/595,281 Page 3

Art Unit: 3753

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Cancel claims 1-18.

This application is in condition for allowance except for the presence of claims 1-18 directed to an invention non-elected without traverse. Accordingly, claims 1-18 have been cancelled.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Monday-Saturday from 10am-6pm (Hoteling Program).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/595,281 Page 4

Art Unit: 3753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Fox/ Primary Examiner Art Unit 3753



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BIB DATA SHEET

CONFIRMATION NO. 6682

SERIAL NUMBE	R FIL	ING or 371(c)		CLASS	GR	OUP ART	UNIT	ATTO	RNEY DOCKET		
10/595,281		11/22/2006		137		3753			70038-0068		
		RULE									
Michael Zolr Michael W.	Robert S. Creswell, Grand Rapids, MI; Michael Zolnierek, Grandville, MI; Michael W. Regelbrugge, Rockford, MI; Jimmie D. Chrysler, Wyoming, MI;										
** CONTINUING DATA ******************************* This application is a 371 of PCT/US04/33436 10/08/2004 which claims benefit of 60/481,499 10/10/2003 and claims benefit of 60/481,890 01/13/2004 (*)Data provided by applicant is not consistent with PTO records. ** FOREIGN APPLICATIONS ************************************											
Verified and /JOH	35 USC 119(a-d) conditions met Yes No Verified and /JOHN C FOX/ Met after Allowance COUNTRY DRAWINGS CLAIMS CLAIMS										
ADDRESS MCGARRY 32 Market A SUITE 500 GRAND RA UNITED ST	ve. SW PIDS, MI 4	9503									
TITLE	ATLO										
DIVERTER	VALVE										
FILING FEE RECEIVED 619 FEES: Authority has been given in Paper No to charge/credit DEPOSIT ACCOUNT No for following: All Fees 1.16 Fees (Filing) 1.17 Fees (Processing Ext. of time) 1.18 Fees (Issue) Other Credit									ing Ext. of time)		

Issue Classification



Application/Control No.	Applicant(s)/Patent Under Reexamination
10595281	CRESWELL ET AL.
Examiner	Art Unit
John Fox	3753

ORIGINAL										INTERNATIONAL	CLA	SS	IFIC.	ATION	
	CLASS SUBCLASS								С	LAIMED			N	ON-CLAIMED	
137			625.46			F	1	6	К	11 / 06 (2006.01.01)					
CROSS REFERENCE(S)															
CLASS	SS SUBCLASS (ONE SUBCLASS PER BLOCK)			CK)											
137	801														
239	394														
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⊠	Claims re	numbere	ed in the s	ame orde	er as prese	ented by	applicant		СР	'A [] T.D.	[☐ R.1.	47	
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		17												
	2		18												
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	4	2	20												
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NONE			ns Allowed:
(Assistant Examiner)	(Date)	6	5
/John Fox/ Primary Examiner.Art Unit 3753	3/2009	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	11

Search Notes 10595281 Examiner John Fox

Application/Control No.	Applicant(s)/Patent Under Reexamination
10595281	CRESWELL ET AL.
Examiner	Art Unit
John Fox	3753

	SEARCHED								
Class	Subclass		Date	Examiner					
137	625.17								
	625.4								
	625.46								
	625.47								
	801								
	862								
239	25								
	391								
	394		3/2009	/JF/					

SEARCH NOTES								
Search Notes	Date	Examiner						
BRS search								
inventor name search	3/2009	/JF/						

		INTERFERENCE SEA	ARCH	
Class		Subclass	Date	Examiner
137	625.46			
	801			
239	394		3/2009	/JF/

U.S. Patent and Trademark Office Part of Paper No.: 20090311

EXHIBIT G

03-19-10/595,281 DIVERTER VALVE 2009::15:44:33 **Patent Term Extensions** Patent Term Extension (PTE) for Application Number: 10/595,281 **Explanation Of Calculations** Filing or 371(c) Date: USPTO Delay (PTO) Delay (days): 0 11-22-2006 USPTO Adjustment (days): +0 Corrections (APPL) Delay (days): 0 Total PTE (days): 0 Patent Term Extension History

Date	Contents Description	PTO(Days)	APPL(Days)
03-18-2009	Mail Notice of Allowance		
03-13-2009	Document Verification		
03-15-2009	Notice of Allowance Data Verification Completed		
02-21-2009	Date Forwarded to Examiner		
01-09-2009	Response after Non-Final Action		
01-09-2009	Request for Extension of Time - Granted		
09-10-2008	Mail Non-Final Rejection		
09-09-2008	Non-Final Rejection		
08-20-2008	Date Forwarded to Examiner		
08-18-2008	Response to Election / Restriction Filed		
08-18-2008	New or Additional Drawing Filed		
07-17-2008	Mail Restriction Requirement		
07-17-2008	Requirement for Restriction / Election		
12-22-2007	Case Docketed to Examiner in GAU		
09-21-2007	IFW TSS Processing by Tech Center Complete		
08-30-2007	PG-Pub Issue Notification		
06-03-2007	Application Dispatched from OIPE		
11-22-2006	371 Completion Date		
05-29-2007	Sent to Classification Contractor		
05-29-2007	Notice of DO/EO Acceptance Mailed		
11-22-2006	Additional Application Filing Fees		
11-22-2006	A statement by one or more inventors satisfying the requirement under 35 USC 115, Oath of the Applic		
07-18-2007	Dummy Standard Action - DO Not DELETE		

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